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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,742	11/08/2001	Shinji Inokuchi	214338	4941

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EXAMINER

EGAN, BRIAN P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,742	INOKUCHI ET AL.	
	Examiner	Art Unit	
	Brian P. Egan	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (#5,741,861) in view of Meyer (#6,228,449).

Yamamoto et al. teach a laminate sheet comprising a copolymer of linear ethylene resin as a main component and an alpha olefin having 3 to 12 carbon atoms (see Abstract; Col. 2, lines 32-60). Yamamoto et al. further teach an eluted component at not more than 30°C of 3 wt.% - 30 wt% of the entire resin material, as measured by a TREF method (Col. 4, lines 24-37). The linear ethylene resin comprises 50 to 99% of the resin composition (see Abstract). The comonomer selected from alpha olefins having 3 to 12 carbon atoms is 1-hexene or 1-octene (Col. 5, line 64 to Col. 6, line 6).

Although Yamamoto et al. fail to explicitly teach the use of the laminate sheet as a release liner, it was notoriously well known in the art at the time Applicant's invention was made that a linear ethylene/alpha olefin copolymer resin laminate sheet could be used as a release sheet for an adhesive substrate as evidenced by Meyer (see Abstract; Col. 1, line 66 to Col. 2, line 5; Col. 2, lines 41-53). Meyer broadly implies that the liner can be used for any adhesive (Col. 1, lines 33-47) and gives an explicit example of polyacrylate pressure sensitive adhesive (Col. 4, lines 11-21). Therefore, depending on the desired end product, it would have been obvious to one of ordinary skill in the art at

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the time Applicant's invention was made to have used a linear ethylene resin laminate sheet as a release sheet for an adhesive substrate.

3. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (#5,741,861) in view of Meyer (#6,228,449) and further in view of Tokunaga et al. (#6,218,006).

Yamamoto et al. and Meyer teach a pressure sensitive adhesive sheet as detailed above. The aforementioned prior art fails to teach the use of an adhesive substrate in contact with the release sheet comprising a polyester adhesive.

Tokunaga et al., however, teach the use of an adhesive layer on a silicone free polyethylene laminate sheet (Col. 11, line 65 to Col. 12, line 8) wherein the adhesive layer comprises a polyester adhesive with aliphatic polycarbonate diol as an essential polyol component (see Abstract; Col. 5, lines 12-27), and further comprises a polyacrylate component (Col. 7, lines 15-27 and Col. 9, lines 46-67). Tokunaga et al. teach the use of the aforementioned adhesive composition for the purpose of providing an adhesive composition that exhibits a high adhesive strength while having a high modulus of elasticity and being tack free at room temperature while also exhibiting excellent heat and weather resistance (Col. 7, lines 38-47). Tokunaga et al. teach the use of a silicone free polyethylene laminate for the purpose of providing a release sheet that does not adversely affect adhesives that are ultimately used for electronic components while also providing a material that is excellent in recyclability (Col. 12, lines 25-36). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have provided a silicone-free release sheet with a polyester adhesive with aliphatic polycarbonate diol for the purpose of providing an

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adhesive composition that exhibits a high adhesive strength while having a high modulus of elasticity and being tack free at room temperature while also exhibiting excellent heat and weather resistance – the adhesive not being adversely affected by the silicone-free release liner – as taught by Tokunaga et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Yamamoto et al. to include a polyester adhesive and a polyacrylate adhesive in contacting relationship to the silicone free laminate as taught by Tokunaga et al. in order to provide an adhesive composition that exhibits a high adhesive strength while having a high modulus of elasticity and being tack free at room temperature while also exhibiting excellent heat and weather resistance – the adhesive ultimately not being adversely affected by the silicone-free release liner.

Response to Arguments

4. Pursuant to the applicant's remarks, the examiner has withdrawn the rejections from the previous office action. The examiner agrees that Egashira et al. fail to teach an ethylene copolymer as the outermost layer of a release liner and therefore even if the combination of references is made, the applicant's claimed invention is not fairly suggested. Furthermore, the examiner agrees that based on the teachings of Adamko et al., one of ordinary skill in the art at the time applicant's invention was made would not have been able to arrive at the applicant's claimed invention – namely the claimed TREF values.

5. With regards to the applicant's contention that Yamamoto et al. teaches only heat sealing and would thereby not be motivated to use the substrate as a release liner, the

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examiner respectfully disagrees. A recitation directed to the manner in which a claimed article is to be used does not distinguish the claimed article from the prior art if the prior art has the capability to so perform. The teachings of the newly cited Meyer ('449) reference clearly demonstrate that an ethylene/alpha olefin copolymer may function as a release surface for a liner in combination with an adhesive layer. Therefore, the fact that Yamamoto et al. may teach a substrate's ability to be heat sealed does not preclude that substrate from also being used as a release liner where prior art clearly demonstrates the use of equivalent material as a release liner. Therefore, the examiner maintains the validity of the combination of Yamamoto et al. with secondary references teaching a combination of an ethylene copolymer sheet in contact with an adhesive layer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 571-272-1491. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

9/14/04